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GROUP EFFECTIVENESS RESEARCH LABORATORY  
DEPARTMENT OF PSYCHOLOGY  
UNIVERSITY OF ILLINOIS  
URBANA, ILLINOIS

Quarterly Report  
April 30, 1968

Communication, Cooperation, and Negotiation  
in Culturally Heterogeneous Groups

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Fred E. Fiedler and Harry C. Triandis  
Principal Investigators

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## QUARTERLY REPORT

April 30, 1968

### Abstract

In the last quarter increasing emphasis has been placed on the theoretical problems arising from the construction of Culture Assimilators. A number of issues have become crystalized: What kinds of cultural data are maximally effective in Culture Assimilators? Should assimilators emphasize cultural similarities or differences? What is the optimal format of a Culture Assimilator? What is the optimal balance between Culture Assimilator episodes of various kinds?

While analysis of a number of attitude change studies, mentioned in previous Quarterly Reports, is still in progress, planning of studies designed to answer some of these new questions is currently under way.

A second line of research has dealt with the effect of cooperation and collaboration on task performance and interpersonal relations. Our particular emphasis here has been on the constraints which the task structure imposes and the effects of certain methods of organizing groups. Since almost all intercultural encounters of concern to us take place in a work context, these problems closely impinge upon strategies for training and leadership.

### Current Work in Progress

A considerable amount of effort during the past three months has been devoted to the completion of research and the preparation of technical reports of studies which were conducted earlier this year.

- a. A technical report describing the antecedent-consequent method has now been typed and will be distributed shortly. This report [Technical Report No. 56(1-68)] is authored by Triandis, Kilty, Shanmugan, Tanaka, and Vassiliou.
- b. Triandis prepared a paper entitled "An analysis of cross-cultural interaction and its implications for training," which presents an analysis of theoretical and methodological problems to be considered in training individuals to interact successfully with members of another culture.
- c. Osgood is working on an extensive report describing the Semantic Feature Analysis project. This summary will also appear as a chapter in a book to be published later this year.
- c. Wichiarajote and Wilkins have completed a technical report of an empirical study of Thai language and culture based on the semantic feature approach developed by Osgood. This report, entitled "Role differentiation in Thai social structure in terms of a semantic analysis of Thai pronouns and roles," is now in final draft stage and should be ready for distribution within four to five weeks.

- d. Judith Ayer is completing the final analysis of a project which involves a "Semantic Game" in which three persons attempt to place adverbs on a target surface so as to minimize the number of clusters. Work on this study commenced last year but has been moving forward slowly because of various methodological problems.
- e. In order to obtain systematic information on the effect of various cooperation structures on group relations and group productivity, O'Brien developed a method of measuring cooperation and then conducted a laboratory study with Ilgen dealing with the effects of cooperation structures upon group creativity. The method of defining forms of cooperation was described in Technical Report 46(67-2). A revised version of this report will be published later this year in Organizational Behavior and Human Performance.

Organizations which required a high degree of collaboration allowed members to pool their ideas but prevented them from developing these ideas in a systematic manner. Organizations which required a high degree of coordination allowed members to pool as well as integrate their ideas. The results suggest that "brainstorming" in creative verbal tasks is not very effective unless accompanied by definite procedures which allow a group to work out the implications of their ideas. Biglan and

Ilgén will present the results of these studies at the Mid-western Psychological Association in May 1968. A technical report by Ilgén and O'Brien is in draft form, as is a technical report by Biglan and O'Brien.

- f. The study conducted by Chemers in Iran during the last year has now been completely analyzed. A draft of the technical report is in preparation. This study was conducted to develop an Iran Culture Assimilator and to test the program in Iran. A field experiment was conducted in which 48 Americans participated as "leaders" and 96 Iranian nationals as group members. The participants were assembled into three-man groups, half the groups with culture trained leaders, half with leaders trained on a control program on the physical geography of Iran. The study indicated that the culture trained leaders changed their behavior in the expected direction, and that the culture-trained, task-oriented (low LPC) leader emerged as more effective in negotiation situations.

Theoretical issues and strategies in providing culture training.

We are now at a point where we have established the effectiveness of the Culture Assimilator as an aid for training individuals for interaction with members of another culture. It is now essential that we develop a theory which explains the results which have been obtained, as well as pointing the way for further development in this area.

There is much that we do not know about the construction of Assimilators. For example, it might well be that the best kind of Assimilator is one which focuses on the values of the learner's culture. One needs to learn something about the values of the learner, first, and then it is possible to "re-interpret" most significant features of the host culture in terms of those values which are high in both cultures. For example, suppose that valuing the country before individual good is a high level value in America and a reasonably high value in some other culture. It may be possible to relate many of the features of the host culture to this value. Since cultural elements are often highly intercorrelated, this may not be particularly difficult. Would such an Assimilator be more effective than Assimilators constructed on other principles? This is a question for future research. Another research question is "How specific should be the Assimilator episode?" O'Brien has evidence that the more specific the Assimilator episodes, the more likely it is that training will improve performance.

It is also possible to construct Assimilators so as to emphasize the similarities or the differences between the two cultures. For example, one could search for similarities and differences in subjective culture and then emphasize either the similarities or the differences. The similarities will create positive interpersonal attitudes, but are likely to raise the expectations about the degree to which interaction with members of the other culture will be successful. When this does not

happen, the disappointment may be very great. Conversely, emphasis on the differences may create negative interpersonal attitudes, but contact may reduce the detrimental effects of this factor.

A recent unpublished working paper examined what the derivations from consistency theories would suggest about this problem. The conclusion of this analysis is worth a moment's discussion: It suggests that we must construct Assimilators in which we emphasize similarities in values and differences in customs and opinions. This is a deduction that depends on a number of assumptions, but it makes sense because when we emphasize similarities in values we make the host culture more attractive to the American, but since we are talking about very general and intangible features of the host culture the American has little chance of disconfirming the training. On the other hand, differences in customs generally produce little defensiveness and result in a minimum of negative affect. Furthermore, these differences are too obvious to ignore.

The final mode developed in that paper discusses eight types of Culture Assimilator episodes: Those in which the American and the host (a) agree about a value; and (b) disagree about a value; and those in which (c) the American feels positively about a value towards which the host feels negatively; and (d) the American feels negatively about a value towards which the host feels positively. Four additional types are obtained by substituting customs for values. The model proposes a quantitative statement of how many Culture Assimilator episodes of each type would provide the optimum training. Given that the American will interact in real

life with the hosts in a corresponding set of eight kinds of interaction situations, and the frequency distribution of these interactions will depend on the nature of his assignment as well as the cultural similarities and differences between the American and the host, it is possible to derive the optimal training. Much more research is needed to determine the best strategy and the kinds of topics on which to emphasize different kinds of similarity. Still another unresearched area is the question of whether or not to train the American, the host, or both. It is likely that by training both we will obtain a maximum improvement in performance, but we suspect that optimal training may require a very different formulation of the problem.

Consider, as an example, what might happen if you have a West African and an American. As Dawson (1968) has shown, the African is likely to have a good deal of value conflict concerning witchcraft and much less conflict concerning "the role of women." Dawson showed that even university students in Western Africa agree with both Western (modern) and traditional concepts concerning witchcraft. In other words, there is cognitive compartmentalizing so that contradictory cognitions co-exist. On the question of the status of women the Africans are neutral to both Western and traditional concepts and they agree with semi-Traditional and semi-Western concepts. The American who interacts with such people will find them agreeing with many of his concepts about witchcraft and also agreeing with certain concepts that are completely different from his own. As



mentioned earlier, we suspect that on many non-objective concepts, such as those dealing with value and the supernatural, disagreement produces the maximum affective response. People are most defensive and insecure about such ideas. When their ideas are challenged they are likely to get very defensive. But note that a science-based cognitive system, such as the American's, is not likely to be challenged by disagreement about witchcraft while the traditional African's system is likely to be severely challenged by such disagreement. For example, consider what might happen if someone argued with you that the earth is flat. You would not get very angry with him. Your belief that the earth is flat is quite unshakable, because it is based on all kinds of objective evidence, including Pan American Airlines schedules. On the other hand, suppose someone challenged your religious beliefs. This is likely to make you much more angry. The reason is that you cannot check such beliefs against objective data, and there is more room for doubt. Thus, we must train the American to be careful when he discusses values, such as beliefs related to traditional witchcraft, yet explain to him the full degree of his disagreement with the African, since this will not challenge him. On the other hand, we must tell the African that the American is Western (like him). In other words, emphasize similarities, but we should not mention the American's disagreement with traditional witchcraft, since this would make him very defensive. In sum, a different set of Assimilator episodes may be appropriate for the American and for the African.

A different strategy may be appropriate for a discussion of the status of women. Here if we reveal the full range of disagreement we might make both trainees quite defensive.

Our current thinking is that the optimal kind of Culture Assimilator will be a very flexible device, which will begin by finding out what the trainee knows and does not know about the other culture. For example, it will ask the trainee to guess the basic attitudes, values and role perceptions of members of the target culture. Deviations between the actual judgments made by members of the target culture and the trainee's guesses of how these members will behave will reveal his major weaknesses in understanding the other culture. A program consisting of interaction episodes that are specially designed to remove these weaknesses will then be presented to the trainee. Such a program will take into account transfer effects of the type discussed in Hypothesis I (see paper entitled "An analysis of cross-cultural interaction and its implications for training). However, the explanations of cultural differences might be different, depending on the values, attitudes, beliefs, and customs of the trainee. Some trainees will receive, for example, a discussion of cultural differences emphasizing the equalitarian aspects of the target culture while others might receive a discussion of the same differences emphasizing the aesthetic values of the other culture. Furthermore, in discussing highly heterogeneous cultures, such as India, one would have to describe different groups whose values are similar to those of the

trainer and orient the trainee to seeking interactions with members of such groups. For example, a trainee may learn that by working with Sikhs he will accomplish more than by working with other Indian groups. Some material will emphasize similarities, and other material will emphasize differences.

In other words, we see in the Assimilator a device for the flexible, tailor-made training of an individual. This training would give as much information about cultural differences as the trainee can handle without getting defensive and hostile, and would interpret the other culture in such terms as to emphasize its most attractive aspects. At the same time it would provide the trainee with skills in effective interaction, with the flexibility of making different responses to different members of the target culture and with the ability to suspend judgment and to tolerate and like cultural differences. Such training devices are a long way from where we are at the present time, but there is a clear path of research ahead of us that can lead to such Assimilators.

Professional Personnel  
(Contract Nonr 1834 (36))

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Personnel Supported by Contract

Ayer (Goodrich), Judith	Research Assistant	50%	
Bates, Peter	Research Assistant	50%	
Gramling, William	Research Assistant	50%	
Hewett, Thomas	Research Assistant	50%	
Mitchell, Terence	Research Assistant	100%	(2 mos)
O'Brien, Gordon	Research Assistant	33%	Professor
Oncken, Gerald	Research Assistant	50%	
Stewart, Thomas	Research Assistant	50%	
Summers, David	Research Assistant	33%	Professor
Symonds, John	Research Assistant	50%	
Wood, Michael	Research Assistant	50%	

Other Personnel Working on ARPA ONR Project or Related Research\*

Chemers, Martin	Research Associate
Fiedler, Fred	Professor
Osgood, Charles	Professor
Nealey, Stanley	Assistant Professor
Triandis, Harry	Professor

Foreign Consultants

Archer, W. K.	Teheran
Vassiliou, V. (M. Nassiakou)	Greece
Lekhyananda, Duangduen	Thailand

\*Paid from other funds.

#### TECHNICAL REPORTS AND PUBLICATIONS

- Fiedler, F. E., Bass, A. R., & Fiedler, Judith M. The leader's perception of coworkers, group climate, and group creativity: A cross-validation. Technical Report No. 1, May, 1961.
- Bass, A. R., Hatton, G., & McHale, T. J. Originality, intelligence, and performance on problem-solving tasks: A pilot study of their relationship. Technical Report No. 2, April, 1962.
- McHale, T. J. & Stolurow, L. M. Concept formation with metrically multi-valued clues and response categories. Technical Report No. 3, April, 1962.
- Fiedler, F. E. & Marzese, W. A. T. The leader's contribution to performance in cohesive and uncohesive task groups. Technical Report No. 4, April, 1962. Also in Journal of Abnormal Social Psychology, 1963, 57, 83-87.
- Triandis, H. C., Mikesell, Eleanor H., & Ewen, R. B. Some cognitive factors affecting group creativity. Technical Report No. 5, May, 1962. Also in Human Relations, 1965, 18, 33-55.
- Triandis, H. C., Bass, A. R., Ewen, R. B., & Mikesell, Eleanor H. Team creativity as a function of the creativity of the members. Technical Report No. 6, April, 1962. Also in Journal of Applied Psychology, 1963, 47, 104-110.
- Anderson, L. R. & Fiedler, F. E. The effect of participatory and supervisory leadership on group creativity. Technical Report No. 7, November, 1962. Also in Journal of Applied Psychology, 1964, 48, 227-236.
- Triandis, H. C., Mikesell, Eleanor H., & Ewen, R. B. Task set and attitudinal heterogeneity as determinants of dyadic creativity. Technical Report No. 8, November, 1962. Also in Human Relations, 1965, 18, 33-55.
- Hatton, G. I. Two-choice conditional probability learning with meaningful and non-meaningful stimuli. Technical Report No. 9, October, 1962.
- Fiedler, F. E. A Contingency Model of leadership effectiveness. Technical Report No. 10, July, 1963. Also in L. Berkowitz (Ed.), Advances in Experimental Social Psychology, 1964, Vol. 1., 149-1901
- Frase, L. The effect of social reinforcers in a programmed learning task. Technical Report No. 11, September, 1963.

- Triandis, H. C. The influence of culture on cognitive processes. Technical Report No. 12, October, 1963. Also in L. Berkowitz (Ed.), Advances in Experimental Social Psychology, Vol. 1. New York: Academic Press, 1964.
- Bereiter, C. Curricular and specific transfer to problem solving ability. Technical Report No. 13, October, 1963.
- Morris, C. G. & Fiedler, F. E. Application of a new system of interaction analysis to the relationships between leader attitudes and behavior in problem-solving groups. Technical Report No. 14, March, 1964.
- Triandis, H. C., Fishbein, M., & Hall, Eleanor R. Person perception among American and Indian students. Technical Report No. 15, June, 1964. Also in Modern Trends in Psychology, Bombay, 1967.
- Triandis, H. C. & Hall, Eleanor R. Creative problem solving in culturally heterogeneous group. Technical Report No. 16, June, 1964.
- Forster, K. I., Triandis, H. C., & Osgood, C. E. An analysis of the use of the method of triads in research on the measurement of meaning. Technical Report No. 17, June, 1964.
- Anderson, L. R. Some effects of leadership training on intercultural discussion groups. Technical Report No. 18, June, 1964.
- Katz, Evelyn W. A content-analytic method for studying interpersonal behavior. Technical Report No. 19, October, 1964.
- Katz, Evelyn W. A study of verbal and nonverbal behaviors associated with social roles. Technical Report No. 20, October, 1964.
- Fishbein, M., Landy, Eve, & Hatch, Grace. Some determinants of an individual's esteem for his least preferred coworkers: An attitudinal analysis. Technical Report No. 21, February, 1965.
- Meuwese, W. A. T. & Fiedler, F. E. Leadership and group creativity under varying conditions of stress. Technical Report No. 22, March, 1965.
- Hackman, J. R. & Jones, L. E. Development of a set of dimensions for analyzing verbal group products. Technical Report No. 23, July, 1965.
- Hackman, J. R. Tests, questionnaires and tasks of the Group Effectiveness Research Laboratory; 1951-1964. Technical Report No. 24, July, 1965.
- Fiedler, F. E. The effect of cultural heterogeneity, leader power, and leader attitudes on group performance: A test of the Contingency Model. Technical Report No. 25, August, 1965. Also in Journal of Experimental Social Psychology, Vol. 2, No. 3, 1966, 237-264.

- Davis, E. E. & Triandis, H. C. An exploratory study of inter-cultural negotiation. Technical Report No. 26, October, 1965. Also in Journal of Personality and Social Psychology, 1965, 2, 715-725.
- Parisi, D. Social reinforcement performance in programmed learning in Italy. Technical Report No. 27, September, 1965.
- Triandis, H. C. & Davis, E. E. Some methodological problems concerning research on negotiations between monolinguals. Technical Report No. 28, December, 1965.
- Fiedler, F. E. & Meuwese, W. A. T. The effect of stress on the contribution of member intelligence to group creativity. Technical Report No. 29, January, 1966.
- Anderson, L. R. Initiation of structure, consideration, and task performance in intercultural discussion groups. Technical Report No. 30, April, 1966.
- Chemers, M. M., Fiedler, F. E., Lekhyananda, D., & Stolurow, L. M. Some effects of cultural training on leadership in heterocultural task groups. Technical Report No. 31, April, 1966. Also in International Journal of Psychology, 1966, 1, 301-314.
- Davis, E. A methodological study of behavioral and semantic differential scales relevant to intercultural negotiations. Technical Report No. 32, June, 1966.
- Fiedler, F. E. A review of research on ASO and LPC scores as measures of leadership style. Technical Report No. 33, May, 1966.
- Triandis, H. C., Shanmugam, A. V., & Tanaka, Y. Interpersonal attitudes among American, Indian, and Japanese students. Technical Report No. 34, July, 1966. Also in International Journal of Psychology, 1966, 3, 468-472.
- Triandis, H. C. Toward an analysis of the components of interpersonal perception. Technical Report No. 35, December, 1966. Also in Muzafer Sherif, Carolyn Sherif, and Donald F. Kent (Eds.) Attitudes, ego involvement and attitude change. New York: Wiley, 1967.
- Davis, E. E. & Grobstein, Nadine. Multiple factor analysis of interpersonal perception. Technical Report No. 36, December, 1966.
- Triandis, H. C., Vassiliou, Vasso, & Thomanek, E. K. Social status as a determinant of respect and friendship acceptance. Technical Report No. 37, August, 1966. Also in Sociometry, 1966, 29, 396-405.

- Naidoo, Josephine C. An inquiry into the structure of attitudes and behavior: A validation study. Technical Report No. 38, August, 1966.
- Osgood, C. E. Speculation on the structure of interpersonal intentions. Technical Report No. 39, September, 1966.
- Parisi, D. Italian word association norms. Technical Report No. 40, July, 1966.
- Parisi, D., Cappelli, U., & Stolurow, L. M. Contextural predictability and frequency factors. Technical Report No. 41, August, 1966.
- Stolurow, L. M. & Santhai, Suthita (with assistance of Koopman, Ray). Critical incidents with heterocultural interactions. Technical Report No. 42, November, 1966.
- Triandis, H. C., & Vassiliou, Vasso. Frequency of contact and stereotyping. Technical Report No. 43, October, 1966. Also in Journal of Personality and Social Psychology, 7, No. 3, November, 1967, 316-328.
- Fiedler, F. E. Leadership style and the performance of coaching groups. Technical Report No. 44, October, 1966.
- Triandis, H. C., Vassiliou, Vasso, & Nassiakou, Maria. Some cross-cultural studies of subjective culture. Technical Report No. 45 (67-1), January, 1967. Also in Journal of Personality and Social Psychology Monographs, 1968 (in press).
- O'Brien, Gordon. Methods of analyzing group tasks. Technical Report No. 46 (67-2), January, 1967.
- Hunt, J. G. A test of the leadership contingency model in three organizations. Technical Report No. 47 (67-3), January, 1967.
- Nealey, S. M. & Blood, M. Leadership performance of nursing supervisors at two organizational levels. Technical Report No. 48 (67-4), January, 1967.
- Triandis, H. C., Vassiliou, Vasso, & Nassiakou, Maria. Some cultural differences in the perception of social behavior. Technical Report No. 49 (67-5), February, 1967. Also in Journal of Personality and Social Psychology Monograph, 1968 (in press).
- Triandis, H. C., Tucker, L. R., Koo, Ping, & Stewart, T. Three-mode factor analysis of the behavioral component of interpersonal attitudes. Technical Report No. 50 (67-6), February, 1967.



- Ninane, P. & Fiedler, F. E. Member reactions to success and failure of task groups. Technical Report No. 51 (67-7), May, 1967.
- Fishbein, M., Landy, Eva, & Hatch, Grace. Consideration of two assumptions underlying Fiedler's contingency model for the prediction of leadership effectiveness. Technical Report No. 52 (67-8), May, 1967.
- Kilty, K. M. A methodological and theoretical consideration of the implicative meaning procedure. Technical Report No. 53 (67-9), May, 1967.
- Nayar, E. S. K., Touzard, H., & Summers, D. Training, tasks, and mediator orientation in heterocultural negotiations. Technical Report No. 54 (67-), May, 1967. Also accepted for publication in Human Relations.
- Triandis, H. C. & Vassiliou, Vasso. A comparative analysis of subjective culture. Technical Report No. 55 (67-11), October, 1967.
- Triandis, H. C., Kilty, K. M., Shanmugam, A. V., Tanaka, Y., & Vassiliou, Vasso. Cultural influences upon the perception of implicative relationship among concepts and the analysis of values. Technical Report No. 56 (1-68), April, 1968.
- Fiedler, F. E. A theory of leadership effectiveness. New York: McGraw-Hill, 1967.
- Fiedler, F. E. The effect of culture training on leadership, organizational performance, and adjustment. ONR Review (to be published).
- Hackman, J. R., Jones, L. J., & McGrath, J. E. A set of dimensions for describing the general properties of group-generated written passages. Psychological Bulletin, 1967, 67, 379-390.
- Hunt, J. G. Fiedler's leadership contingency model: An empirical test in three organizations. Organizational Behavior and Human Performance, 1967, 2, No. 3, 290-308.
- Hunt, J. G. Leadership in organizations: Some new directions in research. In A. Filley (Ed.), Proceedings of the Tenth Annual Midwest Academy of Management Meeting. Carbondale, Illinois: Bureau of Business Research, Southern Illinois University, 1967, 49-60.
- Hunt, J. G. Another look at human relations training. Training and Development Journal, 1968, 22, No. 2, 2-10.
- Hunt, J. G. Breakthrough in leadership research. Personnel Administration, 1967, 30, No. 5, 38-44.

- Hunt, J. G. Organizational leadership: Some theoretical and empirical considerations. Business Perspectives, in press (1968).
- O'Brien, G. E. Leadership in organizational settings. Journal of Applied Behavioral Science, in press (1968).
- O'Brien, G. E. The measurement of cooperation. Organizational Behavior and Human Performance, in press (1968).
- O'Brien, G. E. & Ilgen, D. The effects of organizational structure, leadership style and member compatibility upon small group creativity. Proceedings of the American Psychological Association, in press (1968).
- Summers, D. A. Rule versus cue learning in multiple probability tasks. Proceedings, 75th Annual Convention, American Psychological Association, 1967, 43-44.
- Summers, D. A. & Oncken, G. R. Rule versus cue learning in multiple probability tasks. Psychonomics Science, 1968, 10, No. 2, 63-64.